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AUTHOR Friedrich, Gustav W.
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ABSTRACT

This paper suggests guidelines designed for use by speech communication teachers in assessing the competency of their students. The author proposes four kinds of evaluation of cognitive, affective, and psychomotor learning (three types of learning essential for the speech communication classroom): placement, formative, diagnostic, and summative. He emphasizes the development of precise and specific written instructional objectives to facilitate the achievement of learning goals and lists what these objectives should stipulate. Each evaluative function is defined, and a summarized overview of alternatives to the grading system is included. The author also provides criteria for the selection of the best method of evaluation for different types of learning. (LG)

METHODS AND PROBLEMS OF PRE- AND POST-COMMUNICATION COMPETENCY ASSESSMENT

by

Gustav W. Friedrich
Assistant Professor of Communication
Purdue University
West Lafayette, Indiana 47907

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METHODS AND PROBLEMS OF PRE-AND POST-COMMUNICATION COMPETENCY ASSESSMENT

Ron Allen and Gladys Borchers have told the story of a high school student who fell asleep in a high school business arithmetic class and slept for twenty-five years. Upon awakening and finding the class discussing trigonometry, he beat a hasty retreat to his former general science classroom where he found a chemistry course in progress. Hurrying next to his old speech classroom, he took a seat and smiled happily, saying, "Thank heavens nothing has changed here."

Today, our hypothetical student would probably beat a hasty retreat from his speech classroom. In an attempt to be more "relevant" and to deal with the "real world," the speech communication classroom is undergoing radical alterations. Instead of focusing on producing proficient public performers, the speech teacher now strives to develop in his students an appreciation for, understanding of, and skill in everyday forms of speech communication such as marital communication, social communication, on-the-job communication, conference and committee work, as well as public speaking. To achieve this goal, the speech teacher has turned his classroom into a communication laboratory where he uses such instructional strategies as audiovisual aids, programmed instruction, simulations and games, computer-assisted instruction, and mediated self-instruction.

This change in goals and methods for the speech communication classroom has forced the speech teacher to rethink his whole philosophy of what it means to be a teacher. Is his primary role that of Expert? Authority? Dispenser of Information? Socializing Agent? Facilitator? Ego Ideal? Friend?

One especially troublesome facet of this problem is the area of evaluation. What should the speech teacher evaluate? Why should he evaluate?

How should he evaluate? These last three questions are the focus of this presentation.

What Should the Speech Teacher Evaluate?

It is possible to respond broadly to the first question (i.e., It is learning that must be evaluated) or narrowly (i.e., We should evaluate the reduction of speech communication anxiety). Because the broad response says little, and because I am not yet brave enough to attempt the narrow approach, I choose a middle ground by suggesting that a speech teacher should evaluate the three types of learning suggested by Bloom's taxonomy: cognitive, affective, and psychomotor.

By cognitive learning Bloom means mastery of the content material of the course. This involves intellectual abilities and skills such as recalling, problem solving, creating, and evaluating. Affective learning concerns feelings (such as interests, attitudes, values, and appreciations) about the course content. The final type of learning, psychomotor, focuses on motor skills and perceptual motor skills involving gross bodily movements and finely coordinated bodily movements. All three types of learning are important for the speech communication classroom and, thus, must be evaluated by the speech teacher.

Obviously, the speech teacher needs to be more precise than to say merely that he plans to evaluate the cognitive, affective, and psychomotor learning that occurs in his students. If he wishes to assess student learning, the speech teacher must specify unambiguously the precise cognitive, affective, and psychomotor objectives he wishes his students to achieve. This is best accomplished by writing instructional objectives for the speech course which specify (Kibler et al., 1970, p. 33):

1. Who is to perform the behavior
2. The actual behavior to be employed in demonstrating mastery of the objectives
3. The result (i.e., the product or performance) of the behavior which will be evaluated
4. The relevant conditions under which the behavior is to be demonstrated
5. The standard which will be used to evaluate success of the product or performance

Why Should the Speech Teacher Evaluate?

Here we are asking why or for what reasons should the speech teacher assess the cognitive, affective, and psychomotor learning of his students. Four functions or purposes seem especially prominent in the speech communication classroom: placement, formative, diagnostic, and summative.

With placement evaluation the speech teacher seeks, at the beginning of the course, to discover characteristics of his students that will allow them to achieve most efficiently the cognitive, affective, and psychomotor goals of the course. To do this, the teacher needs to answer two independent questions: (1) How much of the material to be learned do the students already know? (2) What characteristics do the students possess which suggest instructional strategies known or thought to optimize achievement? With the knowledge gained from placement evaluation, the speech teacher can adapt his course to the particular needs of his current students.

Formative evaluation, which occurs prior to completion of instruction on some segment of the course, provides feedback to both the teacher and the student about achievement of course goals. Its effectiveness depends on freedom from any intimation of a mark, grade, or certification. Formative evaluation allows the teacher to modify his teaching strategy and/or prescribe remedial

action for group or individual deficiencies if such action is warranted. For the student, it provides direction and motivation by suggesting areas of strength and weakness.

Diagnostic evaluation attempts to answer the question, Do the students have the prerequisite behavioral capabilities to understand the instruction? Prerequisite behavioral capabilities include mental, physical, and environmental conditions related to the task at hand. For example, mental prerequisites might include appropriate levels of reading ability, writing ability, intelligence, emotional adjustment, and social adjustment; physical prerequisites might include appropriate levels of vision, auditory perception, dominance and laterality, and general health; and environmental prerequisites might include nutrition, parent-child relationships, and peer influences. With diagnostic evaluation, the speech teacher attempts to deal with students' learning and/or classroom problems. The discovery, for example, that high levels of speech anxiety are interfering with achievement of course objectives better equips the speech teacher for corrective action. While a teacher should always be sensitive to the manifestations of symptoms known to be related to learning difficulties, he should be particularly attentive to students when classroom or learning difficulties cannot be explained in terms of cognitive or instructional variables.

Summative evaluation consists of grading, certifying, or attesting to student learning. The most common method used to report summative evaluation is a grade. In a society that places increasing emphasis on educational progress, grades have become the basis for crucial decisions about the educational and occupational destiny of the student. As DeCecco (1968, pp. 646-647) points out: The student uses grades to appraise his own educational accomplishments, to select major and minor areas of study, and to decide whether to terminate or to

continue his formal education. Teachers and counselors use grades to assess past accomplishments, to assess present ability, and to help the student make educational and vocational plans for the future. Parents use marks to determine whether or not their children should go to college and to estimate the probability of success any one child might have in advanced study and particular vocations. School and college administrators use grades as the basis for admission to advanced study and as indications of the student's progress after admissions. And employers use grades in selecting the applicant most likely to perform best the service they require.

Despite the rather obvious limitations of validity, reliability, and interpretation, reforms advocating the elimination or change of the grading system--while abundant--have had only temporary appeal. Below are summarized a number of such reforms (Time, November 27, 1972, p. 49):

1. Written evaluations. This system requires each teacher periodically to sum up a student's strengths and weaknesses. Such evaluations risk being excessively subjective, however, varying widely from one teacher to another.

2. Contract grading. The students decide with their teacher what material to cover in the course and what criteria are to be used in grading. This method is a bit cumbersome but gives students a clear idea of what is expected.

3. Performance curriculum. A teacher outlines at the beginning of the course precisely how much material each individual student must cover for an A or B, then lets the students work at their own pace.

4. Pass-fail, by far the most popular alternative, eliminates competition for grades but fails to distinguish excellent students from average or poor.

5. Blanket grading eliminates competition entirely by requiring a teacher to award every student the same grade, usually a B. Even most anti-graders, however, consider it an unsatisfactory method.

6. Secret grades. By not telling students what their grades are, a teacher can reduce competition but leaves his students anxious about what he thinks of them.

How Should the Speech Teacher Evaluate?

Assuming that the speech teacher has decided to evaluate cognitive, affective, or psychomotor learning for placement, formative, diagnostic, or summative purposes, he must next decide how he can best accumulate evidence on which to base his assessment. His options fall under two headings: things a student says and things a student does.

Self-reports of learning--things a student says--are the usual method of evaluation in the speech communication classroom. Most frequently such self-reports occur in the form of a written test. Whether standardized or nonstandardized, essay or objective, the speech teacher has a variety of well established tools to aid him in the choice or construction of good written tests. Although teachers tend to over rely on written self-reports of learning, when carefully chosen or developed they can be used to evaluate cognitive, affective, or psychomotor learning for placement, formative, diagnostic, or summative purposes.

While seldom practiced, a potentially useful form of the self-report of learning is the interview. As an oral test, it has several weaknesses and probably should not be used for summative evaluation. One serious weakness is that the test must be given privately to one student at a time if the same test is given to all students in the class. In addition, even if the same test test is given to the entire group, the sampling of the abilities of any one student cannot be very comprehensive. For formative and diagnostic purposes, however, the interview is one of the most useful forms of evaluation because many of the aims of assessment can best be achieved in a private, one-to-one setting.

Systematic observation of learning--things a student does--has most frequently taken the form of rating scales used to make judgments about the degree or extent to which certain criteria for communication performance are met. Whether rating takes the form of rank order, paired comparison, comparison with a set of examples which exemplifies a range of the attribute being considered, or numerical rating on some standard scale, speech teachers have become familiar with procedures for developing and using rating scales--especially within the context of public speaking.

A less frequently used form of systematic observation, the checklist, can record systematically and consistently the existence or nonexistence of specific objects, conditions, or events. This data can then be used to assess cognitive, affective, or psychomotor learning for placement, formative, diagnostic, or summative purposes. Following are summarized some of the forms checklist data can take (Brandt, 1972, pp. 94-118):

1. Static descriptors. A set of descriptive items pertaining to highly stable characteristics of research subjects or settings (age, sex, time of day, location, etc.).

2. Action checklists are used to note and record behavior itself. Two basic types:

   a. Sign system consists of a number of discrete behaviors precisely identified in terms of research purposes, any of which may or may not occur during a given time interval.

   b. Category system. Designed to provide classification of each behavioral unit observed into one and only one category.

3. Activity logs are used for systematic, swift, easy entry of highly selective information, at regular intervals, regarding ongoing events.

4. Discrete events records. Whereas activity logs cover the total time of an operation, discrete events records identify the class of event that is to be recorded and the specific features that are to be noted, and then systematically record each event as it happens.

5. Standardized situation responses. Comparisons are made among people merely by tallying and tabulating responses made in the same basic situation.

6. Work measurement. The time and motion studies of the early industrial engineer and the work assessment and operations analyses of the contemporary management expert. It involves breaking down human movement into well-defined motion categories and measuring the time it takes for each motion to be made under such varying conditions as the distance of a move and the size of objects handled.

7. Performance record. A record of people performing specific tasks under relatively standardized conditions and with rather precise, objective scoring measures.

8. Contrived situation responses. Similar in most respects to the standardized situation, it differs only in that it does not occur naturally.

9. Simulation tests. The simulated condition is not the real situation and the performer is fully aware of this fact. Yet, he must make life-like types of decisions, and because of this similarity, his performance behavior is essentially naturalistic.

10. Trait indicator checklists are used to clarify the meaning of rating scales by providing a list of observable indicators.

A final form of systematic observation is the use of instruments such as the clapmeter, pupillograph, polygraph, and cardiotachometer. Such instruments can provide valuable information upon which to base evaluation.

Given the fact that evaluation can be achieved by asking the students what they have learned (written or oral self-reports) or by observing their behavior (rating scales, checklists, or instruments), which is the best approach? It depends on what is being evaluated and for what purpose. Given something to evaluate and a reason for evaluating, a decision as to how to evaluate should be based on responses to the following questions:

1. By which methods is the data for evaluation accessible?

2. By which method can I gather the data for evaluation most reliably and validly?

3. By which method can I gather the data for evaluation most economically and efficiently?

4. Which methods am I qualified to use?

Having accumulated evidence for evaluation, the speech teacher must decide how he can best use it. An especially frustrating aspect of such decisions concerns summative evaluation. How should the speech teacher translate the accumulated evidence into a letter grade? The position taken here is that a grade should be based on the student's achievement of the cognitive, affective, and psychomotor instructional objectives--it should indicate how well he achieved the terminal performances described in the objectives. Unfortunately, rather than using achievement of objectives as the exclusive basis for grading, many teachers base grades on such factors as the student's attitude, amount of effort, or how much he has progressed--even though the achievement falls short of that required by the instructional objective. Such grades are based on highly subjective judgments and are ambiguous. While not uncommon, this devaluation of grades is regretable since grades still weigh heavily in important educational decisions.

A common and agreeable guideline would help insure more meaningful grades. Travers (1950, p. 58) suggests that the grade of A means that all major and minor goals are achieved; B, that all major goals were achieved but some minor ones were not; C, that all major goals were achieved but many minor ones were not; D, that a few major goals were achieved but that the student is not prepared for advanced work; and E or F, that none of the major goals were achieved.

To summarize, the speech teacher seeks to evaluate cognitive, affective, or psychomotor learning for placement, formative, diagnostic, or summative purposes by questioning or observing students.

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